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Chair

Mr. James Maloney

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● (0850)

[*English*]

The Chair (Mr. James Maloney (Etobicoke—Lakeshore, Lib.)): Good morning, everybody. Thank you for joining us today.

Witnesses, we appreciate your taking the time to be here today to talk about a very important subject, one that's of great interest to all the members around this table.

The process for the day is that you will have up to 10 minutes to make a presentation, following which we will open the table up for questions from members. You have translation devices available to you if you need them. You're welcome to deliver your remarks in either official language, and anticipate that you might get questions asked in French and/or English.

I will open the floor to you, Ms. Leach or Mr. Cameron, whoever wants to start us off.

Ms. Tonja Leach (Managing Director, Operations and Services, Quality Urban Energy Systems of Tomorrow): Thank you very much, I'll start off.

My name is Tonja Leach, and I'm the Managing Director of operations and services with QUEST. I'm just going to tell you very briefly about QUEST and then I'll pass it over to my colleague.

QUEST is the voice of the smart energy community's marketplace in Canada. We help all three levels of government, including indigenous governments, utilities, energy service providers, the real estate sector, and solution providers to understand their role and help them to capitalize on the opportunities to succeed in the smart energy community's marketplace in Canada.

I'm now going to pass it on to my colleague, Bruce Cameron, QUEST's Senior Associate, to share the current and future state of energy data in Canada.

Mr. Bruce Cameron (Senior Advisor and Consultant, Quality Urban Energy Systems of Tomorrow): Thanks very much.

Many of my remarks are based upon our recent experience working with a number of governments and utilities in Atlantic Canada on a project we call the Atlantic Canada energy data roadmap. Basically, the situation across Canada today is that Canada is very good at documenting the production of energy. We know what a well is producing. It's reported. We know when gas is exported to the United States. We keep track of all of those things very well.

What we're not very good at is documenting how we use energy. That's the real gap today. It's fragmented, incomplete, and in fact, even where we are successful in capturing energy data, those datasets can't talk to each other. We're not using common definitions. We're going to a lot of work to collect things for one purpose and we can't use them for another.

We focused on what the energy information needs are for tomorrow. We need to have data that has a lot more information attached to it: information about when it's used, where it's used, and what kind of a structure it is used in. If it's for heating a building, we need to know about that. We need to look at the various building types. We want to have much more information on whether it's energy being used in a home that is two storeys and built after the war or before the war because this starts giving us information on what we need to do about that building. We also need to have more timely energy data reporting.

Often datasets in this country are reported up to five years behind. In a rapidly changing world, we need more accountability and better decisions. Five years is too late. We also need to know more about what energy is doing and the energy sector is doing, in terms of socio-economic impact.

A number of things are really driving the change today. They are obvious. We need more data for climate change management, understanding, and accountability. Efficiency programs need to know where we are to understand how much change we've introduced. Communities—and everyone—else are looking for more accountability, so they can celebrate progress and understand where we're going.

All of this flowed into the Atlantic Canada energy data roadmap. Four governments in Atlantic Canada supported the work we did, either morally or in actual cash, as did utilities and the Government of Canada through ACOA. We had a lot of advice and a lot of experience in the region from academics, from people who are involved in utilities and the energy sector, and from ordinary citizens who were just concerned. We had forums in four provinces. We also received a lot of advice from outside the region including from B.C., which has done a lot of work in this area, as well as Ontario and the U.K.

We came up with a vision for an energy system over the next five to 10 years that would end up being a much more robust system that could do many more things and help us make better decisions.

We found that what we needed to address through the process was that we must be able to make better, more thoughtful decisions. Having the data is having the evidence. Just think about it that way. Data is really the evidence that will allow you to say that this was a good decision and look at what happened or, we think this will give us a better decision, based on our experience and the data we've collected in similar situations.

Privacy is paramount. Nobody needs to have that deeply embedded, but I want you to know it was one of our founding principles. When we looked at these systems, privacy had to be paramount.

Also, the consumers have the right to decide what happens to their data. It may be inside some secure place where personal information is managed, analyzed, and associated with other useful business, but if it's to be put out in a public domain, the consumer needs to make the decision whether that's going to happen. We need new tools to enable them to make that decision in an informed, secure, and simple manner.

Technology solutions need to be developed and there needs to be agreement across the country to have those common standards, so that we don't duplicate by collecting information for rate-making and then doing it again for another purpose for energy information. Collect it once and collect it at the same standard all the time. We need technology that's going to improve the operations of those energy providers. All this data is useful for them in making their planning decisions and their operational decisions for the benefit of the ratepayers. There also needs to be national and regional co-operation.

● (0855)

We looked at the balance between making sure that there is privacy for the individual user and that we get enough information and manage to collect it and report it in a useful manner. We came up with some principles and tools that will help government and society make that decision and maintain that balance.

One of the big things that the governments will have to do is make a decision as to what degree all of this needs to be embedded in law. There is a lot that can be done in a voluntary society, where individuals and organizations can come together and agree to provide information on a voluntary basis. However, we're dealing with a very complex agenda. The more parts of this country that we have involved and the more players that we have, the more difficult it becomes for many of them to say that they are going to voluntarily provide their information and be at a competitive disadvantage. Putting it in law may be the way to level that playing field. When the legislation does happen, if it does happen, it needs to be a staged implementation, so that we can make sure that people are able to upgrade their information systems on their own upgrade cycle, and so that it's a cost-effective and efficient way.

There need to be new applications developed. Apps can give much more useful information to consumers in a simple way.

I spent a good bit of time working with the Province of Nova Scotia in energy. I had a team of policy analysts and a bunch of engineers. The engineers had all the facts, but they needed to be able to communicate them to others. We have the technology and the tools to have that happen.

We're looking at a world where some of this is going to have to be organized, particularly on a national level, but even at a regional level there are all sorts of players here. There are utilities. There are governments. There are efficiency agencies. There are lots of organizations that have experience in managing data. At the end, we determined that there may be many appropriate roles, but first of all, there has to be trust. Whatever organizational structure, existing or new, has to have everything in place to say that I'm dealing with data here that sometimes is sensitive and therefore, it needs to be a trusted organization.

The outcome from all of this will hopefully be a world where the rights and obligations of everybody, when handling energy data, are fully recognized, respected, and managed through regulatory processes or government legislation. There has to be that flexible, staged implementation to take into account different readiness. We have to have governments and regulators doing that standardization. That is absolutely critical.

I was speaking to some colleagues in Yukon and Prince Edward Island yesterday. They were saying that the small provinces in this country have different needs. They need to be respected, in terms of the challenges that they have and the different circumstances when it comes to standards, and those standards have to be developed with their buy-in as well.

We also need everybody doing the most efficient thing and often that will be delegation to others, rather than trying to do it all yourself.

In closing, I just want to note the federal role. It must be obvious to you. I know that there have been others who have come up and spoken on this agenda in the last little while. A number of federal agencies have a long track record and have done a tremendous job in collecting data in the past.

When we come to the new energy needs, there has been a statement through energy ministers that they wanted it to be a collaborative process with both provinces and the Government of Canada involved. There is work under way now. I've been asked to build on the work that we did on the Atlantic Canada energy data roadmap and work with the provinces and the Government of Canada to identify the capacities and things that are being done on energy information today to help the ministers understand where they might be able to direct what the needs are for the future. I'm helping them do that. The outcome should be timely, detailed, and useful.

● (0900)

I want to really emphasize at the end the need to do useful things to help people make better decisions.

Thank you very much.

The Chair: Thank you very much.

Mr. Harvey.

Mr. T.J. Harvey (Tobique—Mactaquac, Lib.): Thank you to both our witnesses for being here today.

QUEST recently signed a contract with FCM to deliver some services to small Canadian municipalities, some of which are in my province, like Saint John, Tracadie, and Campbellton.

Could elaborate on how those services will help those communities reach their climate change goals on a very micro level and how that translates into the bigger picture within the province or within Atlantic Canada as a whole?

Ms. Tonja Leach: The work that we're doing with FCM is really centred around adaptation and helping the communities move forward on their adaptation goals. At QUEST, we do a lot of connecting and facilitating conversations. We'll be helping those communities connect with their utilities and other service providers in their communities to help them move forward with their plans on adaptation.

Mr. T.J. Harvey: Touching on something that Mr. Cameron said, you were talking about the role of government in ensuring that data becomes uniform and that it's done in a very structured fashion and mandated. I get all that, but at what point do you feel government oversteps their bounds? What is the threshold for what government can impose upon industry leaders as a maximum amount of disclosure? Is there an endless stream of asking that we can put upon industry, or is there a threshold as to how far we can ask industry to go in terms of the feasibility for industry bearing that cost?

Mr. Bruce Cameron: First of all, there's an un-level playing field today in terms of energy providers. Utilities collect information and report it. They have regulated rates and go through regulatory processes, so what's happening is very transparent. A main issue with electricity is making sure that you can provide that information on a community boundary. Sometimes electricity is not properly measured. With new technologies and new processes, if New Brunswick goes through with the advanced meter infrastructure, it should be able to report on a community level what the electricity consumption is.

Natural gas is in the same world. It's not a big fuel, in either your province or in mine, but it is an important part of it nevertheless.

The third thing that people use a lot of is home heating oil. In that case, there are a lot of individual companies, with dozens of very small players. In our report, we recognized that some of these very small players may, in fact, fall into a burden that's not worthwhile trying to get them to report in detail. They're not operating in a way... Technology may develop in the future, where somebody could meter it off the truck and so on.

We know who the big players are. There should be a way, over the time of refreshing their information systems, that they can get to a world where they're able to provide more information in a secure and respectful place. At the end of the day, the disclosure by large energy providers of what they're doing, in the interest of society, may very well balance out their desire to keep everything a secret all the time and tell no one.

There are many cases where society has decided that it needs to collect information because it is in the national or in the provincial interest. I note that yesterday, there was a story about collecting information on empty homes in British Columbia. Government is continually in the world of deciding that it needs to require people to report a little bit more, in order for it to make a good public policy decision. Then you get into the details of how much disclosure there is and whether you're giving an advantage to a competitor.

I had a conversation at one of our forums in New Brunswick, with somebody about an apartment building. I said, "Do you want to disclose the information about your energy consumption?" She said, "No. I'd rather not." I said, "In Ontario, they're forcing all large companies to disclose." She said, "Well, if everybody is doing it, then I don't have as much of a concern."

I think there's a conversation that needs to be had. We started a conversation through the work that we did in Atlantic Canada and I think that conversation needs to continue.

● (0905)

Mr. T.J. Harvey: You touched on New Brunswick's smart metering program that they've been working on with Siemens. I know from conversations that I've had with senior officials at NB Power that they feel, over the long term, that could actually be transformational to NB Power's entire structure. It could eventually turn NB Power from being an energy producer to more of an energy provider, especially as more embedded generation projects come online, whether it's through wind or biomass cogeneration.

As we see the shift over the next 30 or 40 years, do you think that those large energy providers will become the major data hubs and will be responsible for the collection of the data from the smaller providers? Is that a part of the solution?

Mr. Bruce Cameron: I think that the technology has evolved to a point where there are many models that can develop. There is a technology called blockchain, which is able to securely, efficiently, and effectively embed transactions, so that they can be done on a very micro level and in a cost-effective way. There are many who are saying that maybe we'll get into a world where you'll actually be trading with your neighbour on electricity, so that, literally, you have a plug-in vehicle, while they have a need for some electricity right now and they can draw from your battery just across the fence. That is one end of the world.

There's another end of the world that's going to say, "Yes, but you have transmission and generation from large hydroelectric-installed infrastructure". Churchill Falls, for example, is 5,500 megawatts of electricity, for what, now two-tenths of a cent? You're going to have to go a long way to be able to compete with that, in terms of the new infrastructure.

A report was done by the Rocky Mountain Institute a few years back that really struck me, when I was taking a look at the Nova Scotia electricity system. Where does this all end? Where it ends is that it will be different in different regions. Where somebody has access to that kind of really low-cost hydroelectricity legacy that can beat any price at any time, even if it needs to beat itself down to 5¢ instead of 10¢, it will do it, and then other places won't be as well-connected. They may very well have tremendous resources from solar. They may have batteries that are going to become more and more cost-effective, so they might be much more local and distributed.

In Canada, we're likely to be well-connected and better connected over the next number of years. There will be all these local balances and a dynamic where the information and data needs to be shared, in order to adapt to this very new dynamic world. Someday I may be taking from the grids, and another day, I may be taking it from my battery storage, and another day, I may be giving it. That's a very dynamic world and it's one that everybody needs to prepare for. The only way you can make it work is if you have the systems and the data that can drive all of this. The data and information is the foundation.

● (0910)

The Chair: I'm going to have to interrupt you, Mr. Cameron. I'm sorry.

Mr. Bruce Cameron: Sorry.

The Chair: That's okay. I lost track of time myself.

Ms. Stubbs, we move over to you.

Mrs. Shannon Stubbs (Lakeland, CPC): Thank you, Mr. Chair.

Right now, I'd like to move the motion for which I gave notice on Thursday, April 26, to ask our committee to undertake an immediate study and assessment of the crisis facing the Trans Mountain expansion.

The Chair: We do have committee business at the end of the meeting, would it be appropriate to do it then, so we can carry on with the witnesses?

Mrs. Shannon Stubbs: I'd rather take the time to do it now because of the urgency around the pipeline expansion. I want to apologize to the witnesses. I hope that there will be time to continue to hear from you either later today or in additional meetings on this energy data study, which is also important, but not as urgent or as crucial—I think we can all agree—as the crisis around the Trans Mountain expansion right now for Canada. Can I proceed, Chair?

The Chair: Yes.

Mrs. Shannon Stubbs: Thank you.

The motion I moved asked for the Standing Committee on Natural Resources to do the following:

> That, pursuant to Standing Order 108(2), the Committee immediately undertake a study to find solutions to the obstacles facing the approved Trans Mountain Pipeline expansion; that the Committee consider factors such as: (a) the May 31st deadline issued by the proponent, (b) the potential economic, socioeconomic, investment, and government revenue losses, and impacts on market access for Canadian oil, related to the potential cancellation, especially on Indigenous communities, (c) municipal, provincial, and federal jurisdiction as it relates to the project, (d) potential points of leverage between the federal and provincial governments, (e) potential fiscal, constitutional and legal solutions; that the first meeting take place no later than May 3rd, 2018; and that all meetings be televised where possible; and that the Committee report its findings to the House.

Again, I apologize to the witnesses for interrupting the second day of the energy data study. I want to say in advance I trust that every member at this committee will know the deep concern and profound frustration, particularly among the people I represent in Lakeland, but also for Canadians right across the country, and why it's important for our committee in particular to prioritize this study and to do whatever we can to contribute to solutions.

I hope this motion will not undermine the good working relationships that we have on this committee, Chair. To my NDP colleague, as you said in the House of Commons yesterday, I trust in good faith that every single one of us values responsible resource development and energy development in particular, and that we all have a deep understanding of the wide-ranging impacts and benefits of energy investment in Canada.

I hope you'll forgive me for moving this motion at this time, and that ultimately you will agree with me that we need to prioritize this issue as members of this particular committee. We all agree with the overwhelming consensus from energy proponents, business leaders, banks, and investment firms that the ongoing delay and obstacles facing the approved expansion and the risk of Kinder Morgan abandoning the multi-billion dollar crucial infrastructure threaten Canada's national interests, as a witness said earlier, and will have wide, broad, and long-term consequences for energy development in Canada now and in the future.

The Trans Mountain expansion is in serious peril, and the situation is urgent. That's why I'm proposing that our committee immediately prioritize and focus our work here on the Trans Mountain expansion. As you all know, this is an emergency because Kinder Morgan suspended all non-essential spending on the pipeline and set a deadline of May 31 to remove roadblocks, legal challenges, and political obstacles, after which the proponent said it will no longer bear the risk and costs associated with delays and is likely to abandon it completely.

Just a week ago, again to impress upon you the timely and urgent nature of this issue, Kinder Morgan warned that even events in the past 15 days confirm that it may be "untenable" to proceed with the expansion. That's several warnings during the past few months, and given the deadline a little more than a month from now and still no concrete plan to ensure that the expansion will go ahead, I'm confident that everyone here agrees it should be a priority for us, particularly as members of this particular committee.

Certainly, its emergency status has been reinforced in Parliament, with an emergency debate in the House of Commons on April 16 and an earlier emergency debate in the Senate on February 6, as well as a self-described emergency cabinet meeting on April 11.

As to whether we in this committee should deal with this urgent issue, I refer to the April 19 meeting of the finance committee, where a Conservative MP and our colleague, Tom Kmiec, moved a similar motion. He said if the Liberals adjourned debate, he would take it as a vote against support of the Trans Mountain expansion, and in defence of adjourning the debate, which they then did. Liberal MP and fellow finance committee member Jennifer O'Connell said the finance committee shouldn't do the review because it's "a process that the natural resources committee would have looked at."

Of course, the fact is that our committee hasn't yet reviewed the process or the related economic and interprovincial crisis, and I presume other Liberal colleagues agree with her, so I think we can justify undertaking this work immediately, here in the natural resources committee, no later than May 3, given the urgency of this issue.

● (0915)

Again, I beg for your forgiveness in advance, and I hope you'll grant me the time here to make a comprehensive and compelling case that this work should supersede the existing and planned work of our committee and begin immediately.

Certainly, Conservative members agree unequivocally that the Trans Mountain expansion is vital to the Canadian economy. It's a $7.4-billion infrastructure investment that would create 15,000 direct jobs and thousands more indirect jobs, and will help sustain hundreds of thousands more jobs in the energy sector right across Canada and in all the other sectors that depend on thriving Canadian oil and gas.

The completion of the Trans Mountain expansion offers significant benefit and revenue opportunities for governments. The Conference Board of Canada reports that the combined government revenue impact for construction and the first 20 years of expanded operations is $46.7 billion including federal and provincial taxes, which of course could be used for public programs and services such as health care and education. British Columbia will receive $5.7 billion, Alberta will receive $19.4 billion, and the rest of Canada will share $21.6 billion of that revenue, so, just as the Liberals said when they approved it, and the Conservatives wholeheartedly agree, clearly the Trans Mountain expansion is in the national interest.

Municipalities will benefit directly too, of course. Tax payments before adjusting for inflation total $922 million to British Columbia, and $124 million to Alberta, over the first 20 years of expanded pipeline operations. This pipeline is crucial to oil and gas workers across the whole country, to the Canadian economy overall, to the 43 first nations communities that have benefit agreements worth more than $400 million, and all the first nations communities that are directly impacted by the expansion and within a 10-kilometre buffer zone around it, that all support the Trans Mountain expansion.

It's important to provincial economies and governments, and to municipalities, and the project has completed years of the most comprehensive and rigorous regulatory process with the highest standards in the world, as well as additional consultations, additional information, and additional facts, undertaken by the Liberals since the last election. This has further increased the evidence and the consultation that led to the political approval from Canada, and although the regulators' recommendation declared it to be in the national interest more than a year and a half ago, the expansion has faced continuous obstacles and roadblocks, and remains at risk right now, today.

Canadians even learned yesterday that their tax dollars are going to fund an organizer to assist the network of anti-energy activists explicitly to "stop the Kinder Morgan pipeline" in the coming months. Clearly our committee should give the Trans Mountain expansion the due focus and consideration it deserves, because it is obviously going to keep facing challenges, even though it is a federal project approved under federal processes in federal jurisdiction by both the federal regulator and the federal cabinet in the national interest.

It is particularly urgent that we come to a resolution on ensuring that the Trans Mountain expansion can proceed, given the fact that the other approvals that were made around the same time are facing challenges. Line 3 is facing challenges in its approvals in the U.S. Although it has recently been given a conditional green light, it still faces barriers, and of course there's the approval of the Pacific Northwest LNG project, on which Conservatives again supported the Liberals wholeheartedly, but which was cancelled a few months later.

Oil and gas proponents are the most heavily regulated industry by all three levels of government in Canada. They say in these cases that these were business decisions. However, the fact is that the delay that held up the approval of that project meant that contracts for export to the Asia-Pacific were missed, and that's why the Pacific Northwest LNG project was abandoned.

We must do everything we can to ensure that this remaining approval from that period can go ahead. As Conservatives, we want to contribute in any way we can to support the Liberals in ensuring that this expansion can proceed.

● (0920)

The length of time during which Kinder Morgan has pursued the expansion of this crucial energy transportation infrastructure, working and wanting to invest billions in the Canadian economy, committed to seeing through this major and long-term initiative, but now leading to the proponent concluding that the risk and the costs may be too much to bear, is a very important context as members of this committee deliberate and determine whether to support this motion.

It has been six years already since Kinder Morgan announced sufficient interest in greater volume—beyond the existing pipeline capacity—from oil shippers, established 15- and 20-year commitments, and then applied to the National Energy Board to approve the overall contract and toll structure.

A year and a half later, Kinder Morgan filed its 15,000-page expansion application with the NEB. The NEB then responded, as you know, with a list of over 1,500 participants for hearings. Hearings got under way, and Kinder Morgan responded to more than 400 questions from the NEB and more than 17,000 questions from the hearing participants, which of course is a hallmark of Canada's track record of consultation and public engagement on major energy projects, and it's a track record of which we should all be proud and should champion. Of course, a key component in 2013 was the contribution of traditional indigenous knowledge in submissions.

Twenty-nine months later, in May of 2016, after a thorough and comprehensive scientific, technical, and environmental assessment, the National Energy Board recommended approval of the expansion, declaring it of national interest, contingent on the successful fulfillment of 157 conditions that apply to every aspect of the pipeline, before and during construction, through operation, and eventually, to abandonment.

I want to pause here and just reinforce the vigour, the rigour, and the standards under which the Trans Mountain expansion was approved. I'm not going to just say this; I want to put it on the record, and I just want to ask committee members to note what I am saying here. I don't mean this comment to be partisan. I mean this to bolster the approval and the system under which the vast majority of the Trans Mountain expansion application was assessed and reviewed, in order to assist the federal government to champion its approval, and in recognition of the additional federal report and consultations the government instructed be attached to the Trans Mountain approval.

I want to quote from a WorleyParsons study from 2014. That was before the provincial election in Alberta and the federal election. It concludes, thoroughly and decisively, facts that we all must put on the record constantly and reinforce about Canada's regulator and track record as an environmentally and socially responsible oil and gas developer—literally the best in the world. That has been the case for decades.

In 2014, WorleyParsons issued a report examining the process and policies in place for oil and gas projects in many jurisdictions around the world in order to evaluate Canada's situation and to compare it to its international competitors. The WorleyParsons investigation was exceptionally thorough and evaluated Canada against a number of other countries for performance in areas such as the overall decision-making process; cumulative assessments for regions with multiple projects; and implementation of early and meaningful consultation with stakeholders and indigenous peoples, including the real integration of traditional indigenous knowledge in the implementation of effective social impact and health assessments.

That study benchmarked Canada against nine other major oil- and gas-producing jurisdictions around the world. It was conclusive but last in a series of multiple reports done by experts and analysts that confirm the exact same conclusions about Canada's long-standing track record and the exceptional work of the independent, objective, evidence-based, and expert National Energy Board, the Canadian energy regulator.

● (0925)

I'll quote directly from the report's conclusions so that you don't just have to take my word for it:

> The results of the current review re-emphasized that Canada's [environmental assessment] processes are among the best in the world. Canada [has] state of the art guidelines for consultation, [traditional knowledge], and cumulative effects assessment, Canadian practitioners are among the leaders in the areas of Indigenous involvement, and social and health impact assessment. Canada has the existing frameworks, the global sharing of best practices, the government institutions and the capable people to make improvements to [environmental assessment] for the benefit of the country and for the benefit of the environment, communities and the economy.

The conclusions end with this:

> In summary, the review found that [environmental assessments] cannot be everything to everyone.

We all know that, and we all agree.

> In Canada, however, it is a state of the art, global best process, with real opportunities for public input, transparency in both process and outcomes, and appeal processes involving independent scientists, stakeholders, panels and courts.

That was in 2014. That was the system and the process under which the vast majority of the Trans Mountain application was assessed. Of course, the Liberals then added even more consultation, engagement, and submissions of evidence on top of that already rigorous review. The 157 conditions applied to the Trans Mountain expansion approval address environmental protection, safety, emissions, marine and other ecological protection, prevention and emergency response capabilities, and impacts on the various communities touched directly by the expansion.

Six months later, after the Liberals, as I mentioned, requested another review of upstream emissions, more consultations, and an additional federal report on views not heard during the NEB hearings, the Prime Minister finally approved the project on November 26, 2016. We wholeheartedly supported that approval, and we continue to do so unequivocally.

The reality, though, is that Kinder Morgan has already invested more than $1 billion through years of the regulatory process with the highest standards and rigour for consultation, indigenous engagement, and environmental impact assessments of any energy-producing jurisdiction on earth. Kinder Morgan continues to comply with and fulfill those 157 conditions, to engage with stakeholders, and to address environmental considerations. But it remains at risk, which is why our committee must immediately prioritize an assessment of the challenges continuing to face the Trans Mountain expansion.

It was supposed to have started construction in September 2017. Instead, ongoing delays and roadblocks started immediately. Every month the project is delayed it amounts to $75 million in losses to the proponent; that's every month. It faces highly organized political, legal, and even foreign-funded opponents who promise they will use every tool in the tool box to stop it and who have explicitly said they will attempt to run the proponent off the project to keep it from going ahead. They call it "death by delay". Using inventive legal obstruction and drawn-out maximum permitting requirements, the City of Burnaby used all its levers to delay the expansion and work on the pipeline expansion [*Technical difficulty—Editor*] and on the Burnaby Mountain tunnel. The reason this is significant to the proponent is that the city is the permitting authority for certain purposes within its borders, and the terminal enlargement, and the Burnaby Mountain tunnel, is key to Trans Mountain's expansion.

In June 2017 Kinder Morgan applied for the required permits. Finally, in October 2017, it was forced to ask the NEB for relief. Two months later the NEB responded, and Kinder Morgan continued.

Of course, the B.C. NDP-Green coalition has been especially creative, asking for additional studies about the product that has been in the existing pipeline for decades, that has actually been studied repeatedly and continues to be assessed, as it should be, in ongoing efforts to mitigate risk...and advanced spill prevention and responses.

● (0930)

The Chair: Mr. Whalen has a point of privilege.

Mr. Nick Whalen (St. John's East, Lib.): On a point of privilege, Mr. Chair, it seems we're reaching a point now where....

By the order, I was going to have an opportunity to ask the witnesses some questions. If Mrs. Stubbs is filibustering, that's fine —

Mrs. Shannon Stubbs: No, I'm not. I'm making the case to the members to support the motion.

Mr. Nick Whalen: —but if she is moving the motion, perhaps she can move the motion so that I won't lose my opportunity to ask the witnesses questions. I prepared for the meeting, and I'm not going to have a chance to exercise my rights as a member.

Mrs. Shannon Stubbs: This is an emergency. It should supersede —

The Chair: How much longer do you anticipate being—

Mrs. Shannon Stubbs: —the second day of study on the energy data study. Our witnesses can come back. We can reschedule it.

So I'll continue.

Thank you, Mr. Chair.

The B.C. NDP coalition challenges the federal government's jurisdictional authority aggressively and threatens ongoing attacks and roadblocks through construction. The coalition also confirms that even if the expansion does get built, it will attempt to restrict the volume in the pipeline. This of course would negate the whole purpose of this expansion, which is in the national interest, if successful. But support for the Trans Mountain expansion is growing. It's supported by the majority of Canadians. It's confirmed that an ever-growing and vocal majority of British Columbians support the Trans Mountain expansion too, so we should not confuse the actions of a coalition of anti-energy activists, who are just doing exactly what they promised to do, with a growing majority of British Columbian residents.

The Prime Minister obviously should have anticipated this attack on Trans Mountain, since the B.C. NDP-Green coalition never supported it. They did openly campaign on killing it. But the Prime Minister himself said—this is one of the things that deeply concerned the people I represent in Lakeland—that he didn't bring up the pipeline expansion in his first call with the B.C. premier in June 2017. It's taken 10 months and a full-blown economic and constitutional crisis for him to meet about it personally for the first time, with the project on the line. Clearly, as co-operative and dedicated colleagues and members of this particular committee, we should do everything we can to assist with the resolution of this crisis. The Prime Minister does keep repeating that this pipeline will be built. We hope that will be the case and that it's not too late, but the concern is that he can't say when or how. This is why I'm bringing this motion to this committee and asking for all of us to engage on it immediately.

Even as recently as Sunday, the finance minister suggested that the Liberals will put forward some kind of legislation about it. He said it should happen, quote, "rapidly", but he couldn't or didn't say when: "We don't have exact timelines."

A couple of days earlier, the natural resources minister said "nothing has changed" when Kinder Morgan confirmed it may still be, quote, "untenable". He also indicated that Canadians could expect legislation, except he didn't know when or which minister would bring it forward. The timeline is clearly crucial because of the deadline from Kinder Morgan.

Clearly, our committee should bring our attention and advocacy to this urgent situation in an effort to resolve this crisis and to ensure that the expansion can proceed. Economic opportunities and social benefits for indigenous communities are at stake too. Of course, the incredible innovation, research, fiscal, and technological partnerships between the private and public sector unlocked development of the oil sands along with significant advances in environmental stewardship and energy efficiency in the many partnerships with indigenous communities like the Mikisew Cree First Nation and the Fort McKay First Nation. They've also enabled that resource development, which has long been a major driver of job creation and government revenue benefiting all of Canada. In fact, it wasn't so long ago that nine out of 10 full-time new jobs created in Canada were created in Alberta. That benefits everybody in every part of our country. That was in large part because of Alberta's booming energy industry and the development of the oil sands resource.

Every indigenous community that the pipeline crosses, those directly impacted by it, supports the expansion, and 43 have benefit agreements. They too need us, as members of this committee, to address the ongoing obstacles against the Trans Mountain expansion and to fight for their ability to pursue opportunities through responsible resource development and the completion of the pipeline expansion.

In 2016, when the project was waiting for approval, the former chief of the Whispering Pines/Clinton Indian Band, Michael Lebourdais, said:

> I want the money from our resources...so that we can pay for our health, so that we can pay for our education, so that we can pay for our elders, so that we can pay to protect our environment, so we can build better pipes, we can build better bridges, we can build better railways.

Peters First Nation recently sent a letter to the Prime Minister, in which they said the following:

> We are concerned that among all of the well-funded and highly publicized opposition to the project, the voice of Indigenous nations that support [the Trans Mountain expansion] has been lost. In our view, the construction and operation of the project will provide significant and much-needed benefits to our membership. We are concerned that these benefits are in jeopardy given recent project delays.

● (0935)

> We request that the Trans-mountain expansion project proceed as planned. We believe that—having approved the project—your government now has an obligation to Peters First Nation to ensure that the TMX is not unduly jeopardized. That means working diligently to ensure that permitting is carried out in a fair and timely manner, and that construction can proceed on schedule. We fear that, if your government does not take sufficient action to address these issues, our work over the past years to ensure that the project will benefit our membership will be for naught.
>
> Peters First Nation has lived with the original pipeline that was built over 50 years ago seated at the base of our mountain and above our homes with no worries or incidents. We believe that the TMX pipeline is the safest way to transport the needed natural resources out of our country for the benefit of all Canadians. In saying that we could tell you the statistics of how the pipeline is the safest way, but you've all heard the same speeches....We need to transport this material safely, we feel that the TMX pipeline is the safest option.
>
> Peters First Nation has been in existence since the time memorial and in that time our family has witnessed many changes without our consent or opinion until now. We believe the TMX will not only help us to be more independent but help everyone across the nation. We are not the only First Nation that believes this as 41 other First Nations have done studies and agree with the expansion project including the nine nations that TMX directly impacts and travels through. That is not all, 19 municipal communities that are directly in-line with TMX have seen the benefits of this expansion project as well. This means that over 95% of the route of where TMX directly effects people has been approved by directly impacted communities.
>
> Peters First Nation would like to draw everyone's thought to the positive effects that TMX can provide under the right management. Over three hundred million dollars a year would flow directly into British Columbia alone by way of taxes to the pipeline and agreements signed. In turn that could mean shorter wait times at hospitals, instead of closing schools the government may be able to open a few new ones. Some of those funds could help with our wildfire programs in which we suffered greatly over the past few years with the raging fires or getting a few more police officers out there to protect our people, if you can name a government paying job that does not need funding I would ask you to do so at this time. We would like you to consider the jobs that will be created by this project, not only for the two year construction plan but also the jobs after construction. These jobs are needed in the communities along the pipeline and will create revenue for small businesses and big businesses alike. TMX will give opportunities to people to hone their skills and trades as well, which we need in B.C.
>
> Peters First Nation is giving its full support to the TMX and we have been here since time immemorial, please take this into consideration.

Chief Ernie Crey of Cheam First Nation said:

> If the project doesn't go through, it'll hurt our people. It appears Premier Horgan is prepared to actively undermine the prosperity of First Nations in B.C.

He also said:

> In my opinion, if Kinder Morgan TMX doesn't proceed, hundreds of millions of dollars will be forgone for first nations all the way along the pipeline route. Why I say this is that, taking my own community as an example, we negotiated really hard, and it was really my young council—they're a little over half my age—that negotiated this agreement.

Don Matthew, councillor of the Simpcw First Nation, said, "If the project does not go ahead, we will lose out on opportunities that we have been working hard at obtaining in the last year or so."

Of course, opinions of indigenous people are diverse, and everyone has a right to advocate their views and to assemble peacefully. But it is quite the spectacle to see NDP and Green activists outright oppose economic opportunity and security for 43 indigenous communities while seven challenge the expansion in court. These communities need us to prioritize this crisis and contribute to its resolution in any and every way we can. I look forward to the support of all the members of the committee to proceed with this motion, because action is of course long overdue.

The day it was approved, Canada's Conservatives did say that approval is one thing, but getting it built is another. Our leader's first motion in the House of Commons after he was elected called on all members to support Trans Mountain. That was on June 1, 2017. It was defeated. In February 2018 his request for an emergency debate was denied. The next week, on February 12, 2018, my motion on behalf of all Conservatives called on the Prime Minister to give Canadians a concrete plan of action and report it to the House of Commons by February 15, 2018. That motion was defeated after a full day of debate.

The warning by Kinder Morgan that it might be forced to abandon Trans Mountain is an alarming but predictable economic and now political and constitutional emergency. Today this crisis is about more than the pipeline itself. I want to spend some time talking about the real impacts of this expansion continuing to be challenged in the hope that every single member of this committee will agree that we should prioritize this assessment and undertake this motion as soon as we can.

● (0940)

The Chair: Mrs. Stubbs, I'm going to interrupt you—

Mr. Nick Whalen: On a point of order—

The Chair: —for just one second. You have the floor.

In the spirit of co-operation that we're so proud of here, I think it would be appropriate to dismiss these witnesses.

Mrs. Shannon Stubbs: Sure. I have no doubt they agree with the importance of this issue.

The Chair: Thank you for coming here. You're welcome to stay and listen, if you want. Our apologies. Sometimes circumstances change and are unavoidable.

We are very grateful for your being here today. We want you to know how much we appreciate your contribution to our study.

Thank you.

Mrs. Shannon Stubbs: Thank you.

The Chair: Now, just in dealing with Mr. Whalen's point of order earlier, is it a fair question to ask how much longer you might be? We do have more witnesses who are waiting, and I don't want to have them sit here if—

Mrs. Shannon Stubbs: Well, the faster I can get to it, the faster I'll be done.

Mr. Jamie Schmale (Haliburton—Kawartha Lakes—Brock, CPC): Do we have any idea how the government is going to vote?

Mrs. Shannon Stubbs: No. [*Inaudible—Editor*] comments.

The Chair: But that doesn't answer my question. We only have an hour, so if you're going to be an hour, I will dismiss them now.

Mrs. Shannon Stubbs: No, I won't be an hour.

The Chair: Okay. Thank you.

A voice: [*Inaudible—Editor*]

Mrs. Shannon Stubbs: I don't think so.

Thanks, Mr. Chair.

Today, this crisis is about more than the pipeline itself. It's about investor confidence and certainty in Canada overall. It's about Canada international and economic reputation. Perhaps one of the most compelling reasons for members of the natural resources committee today to support focusing our attention on the Trans Mountain expansion is the significant impact on Canadian energy investment and development, now and in the future. The escalating crisis over Trans Mountain is causing investors and proponents to speak out. That's relatively rare, so elected representatives should take note.

The CEO of one of the biggest midstream oil and gas operators in Canada, Keyera, said the following:

> Canada is not looked upon as a good place to invest when it comes to oil and gas these days...partly because the U.S. environment is quite positive....If we don't have access to markets other than the U.S., we're going to be captive to a market that is going to need our oil and gas, and other products, less and less. We need to be thinking about market access, we need to be thinking about competitiveness, we need to be making sure we're not layering on additional costs that make it more difficult for us to compete.

Upstream oil and gas developers are calling on the Prime Minister to ensure that Trans Mountain can proceed. The president and CEO of Cenovus Energy said:

> If the rule of law is not upheld and this project is allowed to fail, it will have a chilling effect on investment not just in British Columbia, but across the entire country.

The CEO of Athabasca Oil said:

> I would tell him he has to show leadership on the pipeline file. And it's not just words. He needs to back up Kinder Morgan, the pipeline he's approved, and he needs to see it through to construction and make sure we can put shovels in the ground and get it built for the benefit of all Canadians.

The President of the Explorers and Producers Association of Canada said:

> EPAC, on behalf of its 150 member companies, who invest billions of dollars each year in Canada, employ tens of thousands of Canadians and deliver one fifth of the nation's oil and natural gas supplies, calls on the Federal Government to step up to show true leadership and deliver on its constitutional responsibilities.
>
> This critical national project, approved by all relevant regulatory authorities and the Federal Government, has been allowed to be frustrated, harassed and blocked by the abject failure of the Federal Government to provide effective national leadership and government for all Canadians, particularly those in Provinces who need access to our national seaports to support their economies and their citizens.
>
> Kinder Morgan's statement that it is unwilling to risk billions of dollars of its shareholders money without a clear path forward is yet another devastating critique of Canada's growing reputation as a state where the rule of law is not respected and enforced by national and subnational governments. Private sector investment is a key determinant of future economic prosperity yet Canada today ranks near the bottom of virtually all leading industrialized economies on this measure.

I know that will deeply concern every single member of this committee. It reinforces why we must undertake this study and support this motion as soon as possible.

Banks and investment firms are also warning that the delay and uncertainty about pipeline approvals, and particularly about the ongoing obstacles to the Trans Mountain expansion, are impacting confidence in investment in Canada.

The Petroleum Services Association of Canada warns that investment dollars are leaving Canada for countries "offering a more competitive environment for investment". Investors would rather go to countries "where there is greater confidence in getting projects approved" but also—this is important—"completed." That's their point. That's feedback from the Petroleum Services Association of Canada, which represents service, supply, and manufacturing companies in the oil and gas industry. Those are really the homegrown Canadian independent contractors, the small and medium-sized businesses. They are the businesses and workers and entrepreneurs who, along with individual contractors and the self-employed, are being hit the hardest by the massive losses of energy investment. My fear is that those are the companies and entrepreneurs who will be least likely able to recover.

CIBC Deputy Chief Economist Benjamin Tal said that "slowdown or uncertainty regarding a pipeline is clearly a major factor" impacting investment in the energy space in Canada.

The Royal Bank President and CEO said that "in real time, we're seeing capital flow out of the country". He also said: "But if we don't keep the capital here, we can't keep the people here—and these changes are important to bring human capital and financial capital together in one place."

● (0945)

The Scotiabank President and CEO said, "We're going to lose our competitive advantage on a number of things. Canada has a productivity issue and it has a competitiveness issue." He also said, "I'm concerned about the resource-based economy, and access to tidewater for our product."

The Scotiabank Senior Vice-President and Chief Economist echoes those comments, saying, "Reliance on the existing pipeline network and rail shipments to bring Canadian oil to market has a demonstrable impact on Canada's well-being, with consequences that extend well beyond Alberta." That's why I'm hoping all of you here will agree with me about the urgency of this motion and undertaking this work on the Trans Mountain expansion here in this committee, which is appropriate, as was stated by a Liberal member of the finance committee.

Kinder Morgan's announcement prompted the Canadian Energy Pipeline Association president and CEO, Chris Bloomer, to warn that the energy sector is "in crisis mode now", and that if people don't get that, they have "got to get there pretty quickly." He warned that capital is fleeing Canada in real time. Incredibly, though, the day after he made those comments, the Minister of Natural Resources, asked whether or not this was a crisis, said he "wouldn't use or want to use any words that would escalate or inflame".

Of course, in Fort McMurray a couple of weeks ago, the Prime Minister said, "This pipeline will be built", and 48 hours later Kinder Morgan announced explicitly that it won't be if the challenges and obstacles aren't resolved by May 31. I hope again that the members will see how urgent it is that we undertake this work in this committee.

Among the most passionate pleas, of course, are from business owners in British Columbia. The president and CEO of the Business Council of B.C. said, "This is no longer about a pipeline but whether you can rely on government and the rule of law if you choose to invest." He also said, "This can have lasting consequences."

Laura Jones, Executive Vice-President of the Canadian Federation of Independent Business, said, "If uncertainty is allowed to continue, it risks doing serious damage to this country's reputation. We need to find a better path forward and we need to do it now."

This should be of immediate and urgent concern to every single member of Parliament here, and I hope that it is, as members of the natural resources committee but also as legislators who have been entrusted by Canadians to act in their best interest.

The IMF predicts that economic growth in Canada will slow by next year and fall behind the U.S. In fact, in 2016 foreign investment in Canada fell by 42% overall, and it fell again by 27% last year. Meanwhile, U.S. investment decreased by half, while Canadian investment in the U.S. is up two-thirds since the last election.

The Bank of Canada clearly links slowed growth in Canada with energy investment, reporting that new energy investment in Canada will decline in 2018 and then drop to zero. This bleak future, I know, must be as deeply alarming to every member of this community as it is to all the people I represent in Lakeland. It follows on the biggest two-year loss of energy investment in Canada of any two-year period in 70 years following the 2015 election. Over $80 billion in energy projects in Canada have been cancelled.

Energy is the number one private sector investor in the Canadian economy. It is Canada's second biggest export. The impact of the energy sector on Canada's economy, on our prosperity, on our standard of living, and on our future cannot be overstated. I know that's another reason every member of this committee will support this motion and immediately undertake this work on the Trans Mountain expansion.

Hundreds of thousands of energy workers have lost their jobs in Canada, and that has rippled across all sectors in all provinces. Scotiabank analysts called the delay of new export pipelines and the large discounts it has triggered "a self-inflicted wound". The sooner governments move to allow additional pipeline capacity to be built, the better off Canada will be.

● (0950)

Speaking of protecting Canadians and serving their best interests, I know the members of this committee want to support this motion to address the Trans Mountain expansion crisis, because Canadians know now the opposition to Trans Mountain is in part a well-organized and well-funded and orchestrated campaign specifically to subvert and undermine Canadian interests and to shut down Canadian oil.

The *Financial Post*, the *Vancouver Sun*, *The Globe and Mail*, and multiple other media outlets have reported on a leaked document dubbed the "Kinder Morgan Action Hive Proposal", which outlines a strategy by a coalition of anti-energy activists to block the Trans Mountain pipeline expansion. The document was penned by 350.org, whose 2016 U.S. annual tax returns show they have received massive donations, most of them coming from just four sources: $4 million from one donor, $3 million from another, and two donations each of $500,000.

It's also the case that while all of us support every Canadian's right to peaceful assembly, protestors have violated the very reasonable limits set by the B.C. Supreme Court, namely to stay more than five metres away from and not block or impede equipment, workers, or the work at the two of the work site entrances. More than 200 protestors have been arrested since March and have caused injuries to at least four RCMP officers. That's the kind of coalition and activism we're talking about, which is being deliberately undertaken in order to undermine Canadian energy development, Canadian pipelines, Canadian jobs, and Canadian energy investment.

Media report that the Kinder Morgan Hive Proposal has been circulated among members of the Kinder Morgan strategy group, a group of anti-pipeline activists who met with the B.C. NDP environment minister the same day he announced the coalition's plan to limit shipments as a strategy to block the Trans Mountain pipeline. Of course, again, that would negate the very point of the expansion, which has been approved as being in the national interest, and with which I think all of us here agree, except for maybe one colleague. He has a right to do that. He has a right to do that and to advocate on behalf of his constituents.

Canada is almost wholly dependent on the U.S. as a customer for oil, but the U.S. has rapidly transitioned to become Canada's biggest energy competitor. The U.S. is predicted to supply 80% of the world's growing oil demand in the next five years, and 99% of Canada's exports of oil go to the U.S. This is another reason it is so crucial to ensure that the Trans Mountain expansion can succeed and proceed.

A lot of the expanded capacity will go to refineries and to the United States, but the expanded volume will also be able to be shipped to the Asia-Pacific. This is even more crucial because, of course, there have only been two new stand-alone proposals for pipelines to tidewater in recent Canadian history. The first was the previous Conservative-approved Northern Gateway pipeline, which was then vetoed by this Prime Minister after the last election, on the same day of course that he approved the Trans Mountain expansion using the exact same process and evidence.

It is true that the Supreme Court ruled that there should have been additional consultations with indigenous communities on the part of the crown in the consideration of the Northern Gateway. The Prime Minister had an option. He could have done the exact same thing that he did with the Trans Mountain expansion. He could have ordered additional months and consultation and the incorporation of indigenous communities, and then he could have approved the Northern Gateway pipeline, which was a multi-billion dollar investment and an opportunity for increasing exports to the Asia-Pacific. Again, despite the leftist narrative, it was supported by the majority of first nations communities and by the communities it impacted, and it had 31 indigenous community mutual benefit agreements worth more than $2 billion.

That opportunity to build a pipeline to tidewater, even though approved under the highest standards, the most rigorous process, and the most rigorous consultation in the world, was vetoed. It was the first time in Canadian history that a prime minister overruled and rejected the independent, expert-based recommendation of the regulator. Prime Minister Trudeau killed the Northern Gateway in its tracks.

● (0955)

The second new stand-alone pipeline proposal to tidewater was to increase exports to Europe, while also securing Canadian energy independence, bringing western energy resources to eastern refineries. My relatives in Nova Scotia, New Brunswick, and Newfoundland are forced to import 86% of their oil from foreign countries that have nowhere near the standards or the track record of environmentally and socially responsible oil and gas production that Canada has, and it's just because of a lack of cross-country infrastructure.

The energy east pipeline was proceeding. The application was done prior to the last election. It was proceeding through those years of the regulatory process. That was one of the applications that was frozen, and then there were months of delays and roadblocks, of disbanding of the committees, of restarting, of additional reports, and of additional adjudicators.

Finally, at the last minute, a double-standard condition was applied to the energy east pipeline. Multiple other energy projects, by the way, have been exempted of downstream emissions, which means holding a pipeline responsible for emissions of tailpipes and planes and vehicles, as well as upstream emissions, which of course are regulated at the site of energy production in provinces, as it is their jurisdiction. At the last minute, downstream emissions were added to the energy east pipeline consideration. They warned, they gave notice, and then they abandoned their application, which would have been one of the most significant and biggest infrastructure investments in all of Canadian history and would have tied our country together economically, symbolically, physically, and for this crucial purpose of diversifying Canada's oil export markets by allowing for shipping to Europe.

In addition to the loss of the Pacific NorthWest LNG project approval to Line 3 facing challenges in the United States, that's why we, as members of this committee, must support this motion and do everything we can to ensure the Trans Mountain expansion can proceed. It's the last opportunity to reduce at least some of the dependence on the United States, which is now moving ahead of Canada in terms of ramping up its own domestic energy production to secure its own domestic energy use and supply. Of course, because the U.S. recently removed its 40-year ban on exporting crude oil, it is becoming a major energy competitor to provide what will be the world's ongoing and growing demand for oil in the next decade.

Given the importance of the Trans Mountain expansion in that context as well, I'm sure all members of this committee are alarmed by the concept of intervention and activism against Canadian energy and Canadian pipelines by competitive interests. This would be a key element to study in an urgent assessment of the obstacles putting the Trans Mountain expansion at such serious risk.

Of course, part of why this is so concerning is that the Trans Mountain expansion has already been approved. Canada needs to demonstrate that big projects, big initiatives, and major investments can be done; they can go forward and be completed when they have been assessed with the highest standards and the most rigour in the world. TransCanada came out and said, as oil and gas developers do, that all three levels of government in this country, as we're seeing, can literally put them out of business, and it makes no sense for them to be unnecessarily combative with governments publicly.

TransCanada gave that warning, and then they said it was business reasons, but of course, quite clearly, it was ongoing delays, costs, and the political, legal, and regulatory deck deliberately stacked against them; they couldn't even make it out of the approval process in which they had already invested years and billions of dollars. Again, that's why this motion to ensure that we members of this committee do everything we can to assist the Trans Mountain expansion proceeding is so important.

Another pressing issue that calls for our attention, as members of this committee, is of course the interprovincial crisis escalating between Alberta, B.C., and Saskatchewan over the Trans Mountain expansion. As you may all know, the Alberta government tabled Bill 12 last week to give it the authority to control oil and gas shipments out of the province.

● (1000)

Mr. Nick Whalen: I have information, Mr. Chair.

Mrs. Shannon Stubbs: I'm almost done. I'm sure you respect—

Mr. Nick Whalen: It's a point of information anyway.

The Chair: Mr. Whalen.

Mr. Nick Whalen: Earlier in her comments the member referred to four major donors to 350.org. I'm on their 2016 financials, and they list 90 or more donors—foundations, individuals, and organizations. Could she at some point in time table the information about the four primary donors and who they are?

Thank you.

Mrs. Shannon Stubbs: When we support this motion and move forward with this study, absolutely, and I look forward to the comprehensive conversation we'll have about that.

The Chair: So you will table that information?

Mrs. Shannon Stubbs: When the motion is moved and we move forward with the study.

Another pressing issue that calls for our attention is this interprovincial crisis. Alberta's Bill 12, as you know, will give the Alberta government the authority to control oil and gas shipments out of the province. Saskatchewan premier Scott Moe said last week:

> We do ship some energy products to British Columbia but not a huge amount. The majority of the energy products that are shipped to British Columbia come from Alberta,

but

> What we're saying is if they (Alberta) turn off those taps, Saskatchewan won't be here to fill those (B.C.) fuel tanks.

The result is that Canadians and businesses are caught. They're at risk in the crossfire of interprovincial trade wars, of potential economic harm to themselves and to their families, and of increasing costs at a time when costs are already skyrocketing right across the board and families are struggling to make ends meet. Affordability is becoming a major issue for Canadians. They are now being caught in this escalating conflict between these provincial governments and are also at risk of threats to restrict energy supply between neighbouring provincial governments.

These provinces are linked geographically, economically, and intrinsically. Their residents are friends, families, and neighbours. They often have property, residences, or businesses in two or in all of the provinces, all together. Their views and their concerns about the Trans Mountain expansion are overwhelmingly that all the residents in all of those provinces support the expansion to go ahead. We, as legislators and members of this committee must support this motion and move forward with this study to fight for their interests, too, for all those innocent people caught in the middle, with neighbours, friends, and families pitted against each other and losing confidence in national unity in Canada.

Iain Black, President and CEO of the Greater Vancouver Board of Trade, said in response to this conflict, quote, "The B.C. NDP-Green coalition has created an impasse that is now challenging in the full view of the international investment community the very ability of our country to govern itself." This conflict, of course, is the direct result of the stalled expansion. It's another major reason this committee should turn its full attention to this matter immediately.

Now governments, of course, are floating the concept of taxpayers financing or backstopping the Trans Mountain expansion. The suggestion is being made that the only way for the Trans Mountain expansion to proceed is either to subsidize it, to purchase a financial stake on behalf of taxpayers, or potentially to backstop it. That puts taxpayers at risk for billions, whereas Kinder Morgan was poised and committed, and has had to reinforce over and over that they are ready to go. They want to continue to proceed with the expansion. They just need political and legal certainty. They need the obstacles and the challenges to stop. They need leadership from political leaders who agree that this expansion is in the national interest.

It hasn't been required before. For example, the private sector has constructed pipelines successfully before, which were approved and constructed under the previous Conservative government, by investing billions of dollars in this crucial economic and energy transportation infrastructure. It has never been the case before that taxpayers would have to bear that risk in order for a pipeline to go in.

Again, the bottom line is that it doesn't address the uncertainty, the challenges, the ongoing obstacles, or the threats to limit the volume once the expansion is completed, if it ever does go ahead. It's a signal to private sector investment that even once they abide by the rules, meet the standards, and invest in doing everything asked of them in the most rigorous process and under the highest standards on earth, they may still not be able to proceed, even once cabinet has agreed with the recommendation by the independent regulator that a project is in the national interest.

● (1005)

I'm sure that all of us are chilled and alarmed by the precedent that might set and by the impact and the future consequences for private sector investment in the Canadian economy in the future. In fact, a professor from the University of Alberta, Laurie Adkin says, "I don't think the government owning the pipeline will get it out of its Constitutional responsibility, and it's going to make it even more difficult for the government to be seen as a neutral player".

Jack Mintz, from the University of Calgary's school of public policy says, "I don't think [the government's investing in the project] is a good idea at all," and, "It really doesn't deal with the main issue. And the main issue is political uncertainty. What would be the value of the project given this uncertainty?"

That echoes all of the things that oil and gas proponents, businesses, investment firms, and banks are saying. This is about trust in Canada's systems, processes, procedures, and ability to succeed. The conversation around subsidizing or nationalizing a pipeline, as you can imagine, is very worrisome to Albertans who have gone through this before in our history but also to all Canadians, to all communities, and to the entire private sector right across the country. Again, it does not address what is clearly the problem as stated explicitly by the proponent and as seen repeatedly in the billions of dollars of losses of major energy projects throughout Canada, which is in fact legal and political uncertainty.

This is all happening in the wake of a vacuum around regulatory certainty between 2015 and when new legislation around the energy regulator was recently tabled, which oil and gas proponents and pipeline operators are warning will ensure that no new major oil and gas investments and no new major pipeline investments will be made in Canada in the future. Is it really any wonder that Kinder Morgan paused the expansion? The company says, "It's become clear this particular investment may be untenable for a private party to undertake. The events of the last 10 days have confirmed those views".

Before, they were never actually asking for tax dollars, financial equity, or financial backstopping. They were ready to go. They've met the requirements. They are complying with the conditions. They want to proceed on an expansion that is in the national interest and will benefit all Canadians in all communities.

It's our duty as legislators to figure out how we can solve these obstacles, stop these challenges, stop these roadblocks, and ensure that this crucial infrastructure can advance, because this pipeline expansion crisis is clearly urgent. It will of course benefit the Canadian economy, all provinces, municipalities, and indigenous communities. It will support energy investment in the future, which is crucial to all Canadians everywhere.

I thank you for granting me the respect and the time to make what I hope is a compelling, comprehensive, and thorough case to you. I really wanted to do that thoroughly and in good faith, with as much evidence and information as I could, to really compel each and every one of you as to why we should support this motion and proceed. I thank you for giving me the time to do that.

● (1010)

The Chair: Thank you, Ms. Stubbs.

Next up is Mr. Harvey.

Mr. T.J. Harvey: I move that the debate be now adjourned.

The Chair: We will vote on Mr. Harvey's motion.

(Motion agreed to)

Debate has now been adjourned. We will get back—

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): I would like to give notice of another motion that I was going to give earlier, but I was denied that.

The Chair: I'm not sure now is the time to do it. Next time you have the floor, you can....

Mr. Richard Cannings: This will take one minute.

The Chair: All right, go ahead.

Mr. Richard Cannings: I promise I won't go on.

The Chair: It's not that we don't like hearing from you, Mr. Canning.

Mr. Richard Cannings: It's relevant to what we've just been hearing.

It's a notice of motion, and the motion reads:

> That, in light of the allegation made by public servants from multiple departments regarding the instructions that they received from Erin O'Gorman asking them to find a way to approve the Kinder Morgan project before the consultation with indigenous communities and environmental assessment process were completed and that they were never asked to provide advice to support a possible rejection of the pipeline, the Committee invite Erin O'Gorman – former associate deputy minister of the Major Projects Management Office – to appear before the committee and that a representative from Major Projects Management Office, Environment and Climate Change Canada, Fisheries and Oceans, Health Canada, Indigenous and Northern Affairs Canada and Natural Resources Canada appear before the committee by May 31st 2018 and that the meeting be televised.

The Chair: Okay. We are going to get our witnesses in for the next panel.

By video conference, we have Mr. Griffin.

In our presence, we have Mr. Layzell.

Thank you both for joining us. Our apologies for being a little behind schedule. I will turn it over to you. You each have up to 10 minutes to do a presentation, then I will open the floor to questions from around the table.

Mr. Layzell, since you are here, perhaps you can start us off. If the rest of the room could keep their voices down so we can hear the discussions, we would be grateful for that too.

Dr. David Layzell (Professor and Director, Canadian Energy Systems Analysis Research): Thank you very much. It's a real pleasure to be here. Thank you for the opportunity.

● (1015)

I would like to make a few comments initially about why we need energy data. I would argue that we need it because we live in a world of very rapid change. In most cases, these changes arise from outside of government as the result of technology, business model, or social innovation. Sometimes governments work to drive systems change in order to address socio-economic or environmental challenges, and climate change is one of those challenges. Either way, we need high-quality, comprehensive data to carry out the critical analysis and modelling that are needed to inform policy and investment decisions.

In the next nine minutes, I'd like to identify or address three questions. The first is what kind of energy data we need. I would argue that we need data that will allow us to fully understand all parts of the numerous energy systems that link energy resources provided by Mother Nature to the energy services that humans want and need.

Some of the energy data already exists; it is provided by Canadian agencies and is easily accessed, but there are currently serious shortcomings in the completeness and quality of the data. I've handed out a briefing note where I've identified some of the shortcomings, but I don't have time today to discuss each point individually. You'll be thankful for that.

However, I will mention one. Our current thinking about human and anthropogenic energy systems only tracks the flows of energy and carbon through fuels and electricity. It does not consider the flows of energy and carbon that are associated with our food and fibre production. Work we have been doing in the last few years has shown that the annual flows of energy and carbon through Canada's agriculture and forestry sectors is about the same size as our national oil industry, including all of the Alberta oil sands, yet we ignore it. In a world concerned about anthropogenic climate change, I would argue that this is short-sighted, and that there are opportunities within agriculture and forestry to address our environmental issues.

The second question I'd like to address is what useful products energy data can support. The first and obvious one is for forecasting future energy systems based on existing policies and programs plus assumptions about population and economic growth. The second, of course, is to inform government policies by assessing the effectiveness of past and ongoing policies and programs. Energy data is important for that. Perhaps one of the most important is to predict the likely outcome of various new policies for reducing emissions: carbon pricing, clean fuel standards, renewable energy initiatives, etc.

The third product, which I'd really like to focus on today, is to allow us to explore transition pathways. I would argue that Canada desperately needs credible, compelling transition pathways for energy systems that are actually capable of achieving the target we've agreed to in the pan-Canadian framework, which is for large greenhouse gas emission reductions while enhancing economic prosperity.

Despite the fact that Canada has been making climate change commitments for the past 20 years, we have never before defined transition pathways for how we could successfully reach those targets. Perhaps it's not surprising, therefore, that we failed to meet both our 1997 Kyoto commitment and our 2009 Copenhagen commitment.

We still have time to meet our Paris commitments, but we need a plan. I would actually argue that we need plans—with an "s", plural plans—that are credible, compelling, and capable of success. Comprehensive data on energy systems is essential to defining those transition pathways, but it is very important that the pathways be about more than simply reducing greenhouse gas emissions. To be economically credible and compelling to key stakeholders, the transition pathways must address some of the other major problems that exist in our current energy systems. For example, our transportation system generates over 160 million tonnes of CO2 emissions per year. That's a serious problem, but it also kills or seriously injures more than 10,000 Canadians per year, contributes to over $30 billion per year in the social cost of air pollution, and creates congestion that reduces productivity in Canada by tens of billions of dollars per year.

● (1020)

Also, personal vehicle ownership costs the average Canadian family about $11,000 per year, but families only use their vehicles about 4% of the time; 96% of the time they're parked on the most expensive land in Canada, with more than four parking lots for every vehicle in Canada. They also make our communities more car friendly and a lot less people friendly, which creates other social problems. Clearly, we need to address these issues and [*Inaudible—Editor*] could provide the major economic drivers for also addressing the climate change issue.

High-quality energy data is essential to develop collective visions and strategies for building energy systems of tomorrow that are environmentally, economically, socially, and ethically sustainable.

The third and final question is, what should governments do?

My briefing note provides some recommendations for an energy data ecosystem that includes the establishment of two new organizations with very different but complementary mandates.

One is a Canadian energy information organization with a mandate to compile, validate, and make available detailed regional, historic data relevant to the energy supply and demand in Canada. This needs to be closely linked to government departments that actually have the authority to go out and collect that energy data. It needs a governance structure that engages the provinces, territories, municipalities, and industry associations that provide the data, as well as those organizations that are going to be users of that data. The CEIO, as I would call it, must be trusted and fact-based, with the highest standards of quality control. It should be open access, informative, and non-controversial.

The second organization, I would argue, is not as well or clearly defined, but I'm calling it the Canadian transitions pathway initiative. This would be an organization to bring together the innovators and thought leaders across Canada, from industry, academic groups, environmental groups, and municipal governments right through provincial, territorial, and federal departments. Their challenge would be to define the credible, compelling transition pathways that are actually capable of achieving societal goals, including but not limited to greenhouse gas emissions reductions. The governance structure for this organization must be independent, free-standing, apolitical, and with an initial long-term tenure funding period. It's going to take a while to set this up and get it moving.

By defining, characterizing, and critically assessing numerous transition pathways, the Canadian transition pathway initiative would see the spinoff of industry-led consortia that continue to build the visions, develop the technologies, and support the most promising transitional pathways.

In closing, Canada needs to invest in an energy data ecosystem that will not only contribute to evidence-based decision-making but help Canadians come together in support of collective visions for credible, compelling pathways to a better future.

Thanks again for this opportunity.

The Chair: Thank you very much.

Mr. Griffin, over to you.

Mr. Bradford Griffin (Canadian Energy and Emissions Data Centre): Thank you, and thank you for inviting me to speak before the committee. I would largely echo a lot of what David has just said. The path forward is having a network of data houses across the country.

The Canadian Energy and Emissions Data Centre, which I help run, is a non-profit organization that's primarily funded through government and industry sponsorship, and formerly was primarily focused on industry. The organization was set up by NRCan in 1993, and after 25 years we're still providing data that's a primary resource for many Canadians.

Our initial mandate was specifically for industry. Other data centres were set up for buildings, agriculture, and transportation. We have recently expanded our mandate to be a comprehensive data centre for all sectors. This includes industry, buildings, urban systems, transportation, electricity generation, and biofuels. We're expanding to all the energy sources that are relevant to Canadians for policy-making. We've also expanded to include emissions. As David said, this is one of the primary policy areas that Canada has been working on lately, and it is closely tied to energy.

Aside from providing public access to data, we also perform modelling and analysis for various levels of government, industry, NGOs, and international organizations. Having neutral third party data analysis that is separate from Statistics Canada and other government agencies helps give industry and NGOs confidence in the impartiality and independence of the data. We have a long track record of doing this, while maintaining sensitive, confidential information.

I see this as a complement to ministries like StatsCan that help to confirm and provide data, rather than as an alternative. Our recommendation would be that the Government of Canada help support these third party data providers and build a network across Canada that can support more analysis and all the different objectives that different users have.

As David mentioned, long-term support for these types of initiatives is very important. There was an initial burst in the 1990s for setting up these data centres. They have all since ceased to exist. CEEDC is the only one that's managed to survive, and that's largely been due to support from industry that's helped carry it. Government funding would be ideal to help us survive.

The committee asked some specific questions about the types of data that would be useful, and about the users. Access to national data is relevant for helping us meet our policy goals. Production and output data and data on environmental impacts like GHGs help us to relate economic growth to energy demand and efficiency. These all feed into our policy objectives on many different initiatives, such as emission intensities, carbon pricing, output-based allocations, efficiency standards, and fuel standards. All of these are tied to a variety of energy data.

Users range from industry, consultants, NGOs, and people who are critiquing policy or making and trying to influence policy, to public individuals and academics who are doing things like long-term modelling or looking at where our pathways to getting to our targets should be, and then to government itself. Government often accesses third party data to help confirm what it's collected internally.

We regularly interact with these users, and those discussions around data needs or data gaps are particularly valuable for finding out where we need to move in terms of new collection areas or strengthening what we are already doing.

The major needs that we see for data users break down to a few categories, but almost always it's for having more disaggregated information. This could be on more types of energy data related to new business opportunities, market penetration, or looking at other jurisdictions.

● (1025)

It could be about technologies. It could be about different new types of energy—wind, solar, and cogeneration, areas where industry or private entities are already moving that we're not yet collecting enough information on. It could be on things like fossil fuels and having more disaggregated information on fossil fuels to help us calculate our greenhouse gas emissions. These are related to our climate change targets. Unfortunately, this information is often considered one of the most confidential areas, and therefore Statistics Canada is not able to release enough disaggregated information for the public to be able to critique different policies.

The last need is for more disaggregated information around jurisdiction. Currently, we have fairly good data at the national level, but as soon as we get into provincial or regional and municipal levels, we start having a lot more confidentiality issues, and it's more difficult for us to do analyses on these areas. Comprehensive energy data, broken down by region and energy type, is necessary for us to help figure out where we're going and where we are, benchmarking our already existing policies in terms of how we're doing and where we're going.

These discussions around new data or data gaps are also extremely relevant for highlighting our social, climate, and economic objectives and how we might get there. These data provide a solid foundation for those discussions. As David said, an impartial and independent data entity—these already exist across Canada; it's just a matter of making them more robust.

Thank you for allowing me this time.

● (1030)

The Chair: Thank you very much.

Mr. Tan.

Mr. Geng Tan (Don Valley North, Lib.): Thank you to both gentlemen for being with us today.

My first question is for you, Mr. Layzell. A few days ago, we heard statements from some government agencies—NRCan, the National Energy Board, Statistics Canada, and Environment Canada. The impression the committee had was that while we may not have a very good national energy data strategy, we do have lot of data available, and there are hundreds of dedicated professionals or analysts doing work on the data, to process the data, analyze the data, and then do the modelling.

You mentioned some concerns in your statement. I had a quick look at your website, and under the heading "Visualizing Canada's Energy Systems", you wrote the following:

> Unlike the USA, Canada does not have an Energy Information Administration. While valuable data is provided by government sources such as [the big four], the information is often incomplete and disconnected.

What is your definition of "incomplete and disconnected"? Why do you think our current data is not good enough for us to do the analysis or derive a strategy or projections?

You also mentioned that there are "serious shortcomings". How serious is this gap?

Dr. David Layzell: Thank you for the question. I think it's an excellent one.

As Bradford just noted, sometimes we have data on national information but not down to provincial levels. As we all know, energy is a provincial responsibility in Canada. If we have to engage the provinces in an energy transition, they're interested in the economic benefits, they're interested in reducing the environmental footprint, and they're interested in supporting their industries and creating jobs, etc., so we need that provincial data.

We're a major user of the CDIAC data source. We go and look for data anywhere we can get it. That is one of the challenges. Sometimes you collect data at one location, and then you have other data from another. When you try to put them together and make sense of them, you realize that they don't make sense. Even though they use the same words to describe what the data is, they actually have different meanings. The struggle is to actually go down and understand that this data includes something else that this other data doesn't. We spend literally weeks and months a year trying to actually sort out the data. In the end, we get it for our own research group. It's crazy, because what I really want to do, if we're going to do all that work, is make it publicly available so that other people don't have to go through the pain and suffering. I know that Brad's centre has done some fantastic work in trying to do this and to put this out, but everybody's working on a shoestring and there's not coordination. We need coordination amongst the datasets and we need finer data, down to the provincial level and ideally municipal, because 75% of our greenhouse gas emissions and much of our economic activity is in our municipalities. They have to be at the table as well. We need that kind of data.

I think having a data information organization that has the mandate and responsibility and support to actually coordinate and rationalize it is absolutely critical. It would save a lot of time and energy. In my research program and my activity, I see myself not as a data collector but as a data user. However, I'm afraid I spend a lot more time than I'd like to in trying to collect and compile data so that I can use it. It's painful. I would love for somebody else to do it, because we'd like to spend a lot more of our time figuring out how we can take this data, shape more useful products, and identify these transition pathways so that society in general would say, "Let's go there. Let's build a better tomorrow."

● (1035)

Mr. Geng Tan: You mentioned that some data collection is the responsibility of the province, or even probably of industry and municipalities. You also mentioned that we need coordination. I agree that we need better coordination, but you do the modelling to fill the so-called gap. Why don't you think we should build up this capacity, or build up the resources to achieve the same data quality as the energy information administration's in the U.S., instead of doing the modelling or other things? From your perspective, or from your side, what's the benefit of this modelling? How do you really verify the results and validate the accuracy or correctness of your models?

Dr. David Layzell: The quality of a model often is highly dependent on the value of the data that goes into it. What we do is we go back and collect historical data, relying on CDIAC and other organizations in Canada, going back to 1980 or 1990, to look at the trends. We build our computer models to try to actually simulate what's happened in the past. We try to recreate the past changes that have occurred. Our energy systems are always in dynamic change, so we're trying to understand and use that.

Once we can recreate the history with our models, in a reasonable recreation, then we can start to project into the future. But I would argue that in our models, and in the way we look at modelling and scenario modelling into the future, we're not predicting the future. I think you can't really predict the future. There's too much change. What we're saying is that there is an opportunity for Canadians to create the future, so it's actually more about how we create, how we have a vision. We have to take a vision for the kind of Canada we want, the kind of world we want to see, in the next 10, 15, or 20 years. Then let's look at using the modelling to identify and align our policies and investments, and align our innovation and R and D programs, to create the future that will make the world better for our children and our children's children.

That's really the value. It's about creating. We're not predicting the future.

Mr. Geng Tan: Next, Mr. Griffin—

The Chair: I'm sorry. We're going to have to move on.

Mr. Schmale, at long last.

Mr. Jamie Schmale: At long last, I know.... T.J. was too quick. I'll save my words for another time. I will share my time with Mr. Falk, too, so he'll get a chance to weigh in on this.

Thank you, gentlemen, for your comments. We do appreciate them. One thing that you both seem to be in tune on is the fact that you're looking for more funding for a data centre. I'm just curious: does anyone have a number for what you're looking for in terms of the dollar value?

Dr. David Layzell: Bradford, why don't you answer? You probably have a better idea of what the costs would be.

Mr. Bradford Griffin: It's not so much the amount, but the stability, really. At CEEDC, we operate these days on at most a two-year contract with government, because we're just not a priority. We're not at the top of the funding list, so every year it's about getting another proposal together to keep things going. I don't know if David is in the same position, but that's the biggest problem.

If I knew that I had funding for five years or 10 years—10 years would be amazing—no matter what it was, I could build around that. That's the biggest problem, I think. The ability to hire another couple of people would make things infinitely easier, so that's really what we're looking for. It's knowing that we can plan for the future, start setting things in place, and then slowly build up from there. I don't have a dollar figure to offer you right now, but....

● (1040)

Mr. Jamie Schmale: If this information is valuable, which I'm sure it is, wouldn't the private sector be willing to pay for this?

Mr. Bradford Griffin: They do. Industry supports us as well. About two-thirds of our budget comes from the federal government, and about a third from industry. They do see the value in this.

Mr. Jamie Schmale: Okay. I'm just trying to get my head around it because, as you know, most provinces and the federal government are running the operation on the credit card right now. I guess as politicians we need to determine if we fund A, B, or C with limited money in terms of the fact that what we're using is borrowed money that will have to be paid back at some time, which means future tax hikes or service cuts.

Unless, David, you want to chime in quickly, I'll move on to my next question.

Dr. David Layzell: One thing I can say in terms of the cost is that there are already considerable resources being spent now within the government to collect data. Some of that could actually be aligned better, I would argue, because you have different departments, and obviously we need to be looking at how we work with groups outside of the government.

In some of the discussions in meetings we've been in within the last two years, I think there have been numbers in the range of probably $10 million a year in overall costs, with a long-term commitment. That's a number that I've heard bounced around, but again, I think we might be able to reallocate some of that from existing departments that are already contributing in this area, just to make sure we get more bang for the buck on that.

Mr. Jamie Schmale: Right, and as you mentioned, almost all of the provinces already do this.

Dr. David Layzell: Well, not the provinces so much. This is mostly federal. The provinces do collect some information and they're feeding it in, but Statistics Canada has significant investments that they're doing already in collecting energy data. You have Transport Canada, Agriculture Canada, and Natural Resources Canada all involved. It's about trying to get these groups to coordinate together to avoid duplication, to rationalize when they're collecting similar information that relates to one another, and then trying to get more data and trying to find a way of actually making that data clearer and more transparent.

Mr. Jamie Schmale: Yes, I think that what we heard in previous testimony is what you two are talking about: clearer data. You see, my preference now would be to see an existing organization, like Stats Canada perhaps, taking the lead, rather than creating a whole new department with new offices and all this other stuff. I think that's a way better use of taxpayer dollars.

Dr. David Layzell: I'm open to different models. Ultimately, I'm interested in the product. I think there's a role for inside and outside organizations, but ultimately the question is, how do you bring it together to make sure you have a coordinated overall response?

It was about 45 years ago or so, in the 1973 oil crisis, that the United States set up its Energy Information Administration. That was the driver. Canada didn't do it at that time. It was an energy security driver at that time. That organization does have a mandate and the authority to go out and collect energy data and make it available publicly. They create a pretty high.... It's something that we could emulate here. That is certainly a government organization.

Mr. Jamie Schmale: Right.

Dr. David Layzell: Working out the details with other organizations that are playing a very valuable role is critical, so I could easily see the main house being within government, while supporting other organizations to help in delivering the most efficient and effective product.

Mr. Jamie Schmale: David, in your testimony, you talked about how we failed in our Kyoto targets and then in Copenhagen, but we still have time, apparently, to meet Paris targets. There are many reports that show that we are not on track to meet Paris—that is becoming abundantly clear—unless you shut down major portions of our economy, including agriculture, transportation, and energy.

An article from the *National Post*, on April 21, 2017, states, "Government data show overall emissions have gone down slightly, overall—from 727 megatonnes in 2014 to 722 megatonnes in 2015." That was done without a carbon tax.

Having said that—

● (1045)

Mrs. Shannon Stubbs: It was before the last election.

Mr. Jamie Schmale: It was before the last election—exactly—when we were told that we didn't have an environment plan, which we did: technology innovation and strategic investment.

However, what other data are you looking for that will, knowing the fact that we know we can't make our Paris targets without shutting down major sectors of our economy—

Dr. David Layzell: We would actually disagree with that and say that we could meet our Paris targets and actually stimulate parts of our economy. I think there are opportunities, but it's really about defining and looking at systems change with a broader perspective.

If all you have is tunnel vision on greenhouse gas emissions and if the only thing you're trying to change about our energy systems is our greenhouse gas emissions, then I would agree. I would say that it's like putting lipstick on a pig. You're not going to.... We have a real serious problem with some of our energy systems, so when we actually look at systems change, we should maybe step back—

Mr. Jamie Schmale: Do you mean energy systems provincially?

Dr. David Layzell: Energy systems in Canada—

Mr. Jamie Schmale: You're saying the whole resource system is where we have a problem—

Dr. David Layzell: I'm talking about our energy systems as our transportation system—our mobility system, for example.

What we're saying is that what this is about is directing disruption. We live in a world of major disruptive change. Look at the last 20 years and the huge impacts on our retail sector, our telecommunications sector, on the movies, the books, etc. Those kinds of disruptive forces are now starting to impact our energy supply-and-demand systems.

For example, in transportation, we have autonomous vehicles and vehicle sharing. We have electric vehicles coming in. We have electric trucks: an autonomous trucking sector. We have huge innovations around the possibility of a physical Internet.

Those kinds of disruptive changes would actually reduce the cost of delivering energy services in a major way. They would stimulate the economy and would put a lot of money into our economy, but most of those disruptive changes are not focused on greenhouse gas emission reductions. They're focused on systems changes.

I would argue that the challenge for our governments, provincially and federally, is to look at how they can direct those disruptions to meet societal goals, which include greenhouse gas emission reductions.

The Chair: Thank you.

Dr. David Layzell: It also might include reducing accidents, reducing the health care costs of our transportation system, helping in urban redesign, and reducing the cost of personal mobility to the average Canadian family, but that is about—

The Chair: Mr. Layzell, I'm going to have to ask you to wrap up.

Mr. Jamie Schmale: What about Ted?

Mr. Marc Serré (Nickel Belt, Lib.): Yes, what about Ted?

The Chair: The reason we're stopping, Mr. Schmale, is that he wants to have a discussion with you about sharing.

Voices: Oh, oh!

The Chair: Gentlemen, thanks to both of you for joining us today. We apologize for starting late. Thank you for being patient.

The meeting is adjourned.

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